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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2018/2019

PIM0245 – INTRODUCTION TO MULTIMEDIA TECHNOLOGY

(Foundation in Information Technology)

29 May 2019
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of THREE pages (excluding the cover page).
2. Answer ALL questions.
3. Write your answers in the Answer Booklet provided.

Instructions: Answer all questions. Write your answers in the Answer Booklet.

QUESTION 1 [10 Marks]

- a. Identify **TWO (2)** characteristics of the multimedia product shown in Figure 1 below. (2 marks)



Figure 1

- b. As a user of multimedia products, list and explain briefly **TWO (2)** perspectives on how users evaluate the quality and usefulness of the product. (3 marks)
- c. State the main objective of stage 1 in the multimedia development process and explain briefly **TWO (2)** steps performed in this stage. (4 marks)
- d. Documentation is important during the deployment or delivering stage of multimedia products via Web. State a reason of the importance of the documentation. (1 mark)

QUESTION 2 [10 Marks]

- a. What is storyboard? List **TWO (2)** common elements included in a storyboard. (2 marks)
- b. Provide **THREE (3)** guidelines applied in the interface design of a multimedia product. (3 marks)

Continued...

- c. State the difference between serif and san-serif fonts. Fill in the table with the best font for better readability.

	Body text	Title/ Headlines
Computer Display		
Printed page		

(3 marks)

- d. Explain briefly the difference between kinematics and morphing methods used in computer animation.

(2 marks)

QUESTION 3 [10 Marks]

- a. What is vector graphics? List **THREE (3)** advantages of using this graphics. (4 marks)
- b. Azreen is assigned to design a poster for an event in her faculty that is to be uploaded into the bulletin board. The required size for the poster is 600 pixels by 300 pixels and needs to be compressed as JPG (Joint Photographic Expert Group) file format. Calculate the estimated file size of the poster in MB. Show the calculation in detail. (2 marks)
- c. List and explain briefly **TWO (2)** categories of multimedia authoring tools that can be used to integrate elements in a multimedia product. Provide **ONE (1)** example of the software for each category listed. (4 marks)

QUESTION 4 [10 Marks]

Ravi loves to play computer games and he wants to develop a simple game application for kids. He starts to design the prototype of the application with a welcome page and three different menus which are beginner, intermediate and advanced. Each menu will have certain activities and marks or points to be collected by the player. In the beginner menu, it will have two submenus known as desert and mountain. He will also add more graphics and audio to make it more interesting.

- a. Identify the category for the above multimedia product and give **TWO (2)** reasons to support your answer. (2.5 marks)
- b. List **TWO (2)** considerations for Ravi in determining the content of the above product. (2 marks)
- c. Illustrate the navigation structure for the above product. (5.5 marks)

Continued...

QUESTION 5 [10 marks]

You and your team members are being assigned to be involved in the development of a multimedia project for a montage. This project will integrate most of the multimedia elements especially graphics, audio and video.

- a. In digital audio, a sample of sound is recorded and stored as digital information in bits and bytes. There are three characteristics that need to be considered in order to produce a quality audio. List and explain briefly each of these characteristics (4.5 marks)

- b. In Malaysia, file size is one of the issues that needs consideration in any multimedia product due to the usage of graphics, videos and audios. Based on the information given in **Table 1**, calculate the estimated file size for this digital video and write the answer in MB.

Table 1

Duration	Colour resolution	Frame size	Audio
1.2 minutes	24-bit	320 by 240	12.5 MB (3.5 marks)

- c. Explain briefly the difference between playback and delivery features that are commonly included in an authoring tool.

(2 marks)